

CLAIMS

What is claimed is:

1. A hot-pluggable peripheral input device coupling system for coupling one or more peripheral input devices to a server platform, with the peripheral input devices being
5 connected to a specific type of input connector having a set of power lines and a set of data lines, for the purpose of allowing the peripheral input devices to input data and commands to the server platform;

the hot-pluggable peripheral input device coupling system comprising:

a connecting port, which is pluggable to the input connector, and which bifurcates
10 the power lines and the data lines of the input connector;

a power module, which is coupled via the connecting port to the power lines of the input connector for supplying power to the peripheral input devices;

a hot-plug detection module, which is coupled to the power module, and which is capable of generating a hot-plug enable signal in the event of the power module being
15 electrically connected to the peripheral input devices; and

at least two management control modules, including a first management control module and a second management control module;

wherein the first management control module is preset to active mode while the second management control module is preset to standby mode to serve as a redundant
20 backup module to the first management control module such that in the event of a failure to the first management control module, the second management control module will be promptly switched to active mode;

and wherein the one of the first management control module and the second management control module that is currently in active mode will respond to the hot-plug enable signal from the hot-plug detection module to perform an initialization procedure for the peripheral input devices to allow the server platform to be functionally linked to the peripheral input devices.

2. The hot-pluggable peripheral input device coupling system of claim 1, wherein the server platform is a blade server.

3. The hot-pluggable peripheral input device coupling system of claim 1, wherein the peripheral input devices include a keyboard and a mouse.

10 4. The hot-pluggable peripheral input device coupling system of claim 1, wherein the input connector a PS/2 connector.

5. The hot-pluggable peripheral input device coupling system of claim 1, wherein the hot-plug detection module includes:

an operational amplifier, which has a positive input end, a negative input end, and
15 an output end; wherein the positive input end and the negative input end are connected to detect a potential drop in the power module when the power module is electrically connected to the peripheral input devices to thereby generating an electrical voltage representing the hot-plug enable signal.

6. A hot-pluggable peripheral input device coupling system for coupling one or more
20 peripheral input devices to a blade server, with the peripheral input devices being connected to a specific type of input connector having a set of power lines and a set of data

lines, for the purpose of allowing the peripheral input devices to input data and commands to the blade server;

the hot-pluggable peripheral input device coupling system comprising:

a connecting port, which is pluggable to the input connector, and which bifurcates

5 the power lines and the data lines of the input connector;

a power module, which is coupled via the connecting port to the power lines of the input connector for supplying power to the peripheral input devices;

a hot-plug detection module, which is coupled to the power module, and which is capable of generating a hot-plug enable signal in the event of the power module being

10 electrically connected to the peripheral input devices; and

at least two management control modules, including a first management control module and a second management control module;

wherein the first management control module is preset to active mode while the second management control module is preset to standby mode to serve as a redundant
15 backup module to the first management control module such that in the event of a failure to the first management control module, the second management control module will be promptly switched to active mode;

and wherein the one of the first management control module and the second management control module that is currently in active mode will respond to the hot-plug enable signal from the hot-plug detection module to perform an initialization procedure for
20 the peripheral input devices to allow the blade server to be functionally linked to the peripheral input devices.

7. The hot-pluggable peripheral input device coupling system of claim 6, wherein the peripheral input devices include a keyboard and a mouse.

8. The hot-pluggable peripheral input device coupling system of claim 6, wherein the input connector a PS/2 connector.

5 9. The hot-pluggable peripheral input device coupling system of claim 6, wherein the hot-plug detection module includes:

an operational amplifier, which has a positive input end, a negative input end, and an output end; wherein the positive input end and the negative input end are connected to detect a potential drop in the power module when the power module is electrically
10 connected to the peripheral input devices to thereby generating an electrical voltage representing the hot-plug enable signal.

10. A hot-pluggable peripheral input device coupling system for coupling a keyboard and a mouse to a blade server, with the keyboard and the mouse being connected to a PS/2 connector having a set of power lines and a set of data lines, for the purpose of allowing the
15 keyboard and the mouse s to input data and commands to the blade server;

the hot-pluggable peripheral input device coupling system comprising:

a PS/2 connecting port, which is pluggable to the PS/2 connector, and which bifurcates the power lines and the data lines of the PS/2 connector;

a power module, which is coupled via the connecting port to the power lines of the
20 PS/2 connector for supplying power to the keyboard and the mouse;

a hot-plug detection module, which is coupled to the power module, and which is capable of generating a hot-plug enable signal in the event of the power module being electrically connected to the keyboard and the mouse; and

at least two management control modules, including a first management control
5 module and a second management control module;

wherein the first management control module is preset to active mode while the second management control module is preset to standby mode to serve as a redundant backup module to the first management control module such that in the event of a failure to the first management control module, the second management control module will be
10 promptly switched to active mode;

and wherein the one of the first management control module and the second management control module that is currently in active mode will respond to the hot-plug enable signal from the hot-plug detection module to perform an initialization procedure for the keyboard and the mouse to allow the blade server to be functionally linked to the
15 keyboard and the mouse.

11. The hot-pluggable peripheral input device coupling system of claim 10, wherein the hot-plug detection module includes:

an operational amplifier, which has a positive input end, a negative input end, and an output end; wherein the positive input end and the negative input end are connected to
20 detect a potential drop in the power module when the power module is electrically connected to the keyboard and the mouse to thereby generating an electrical voltage representing the hot-plug enable signal.

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